



Storm Water Pollution Prevention Plan and Monitoring Implementation Plan

Venoco, Inc. Platform Holly Facility
Goleta, CA 93177

June 2015

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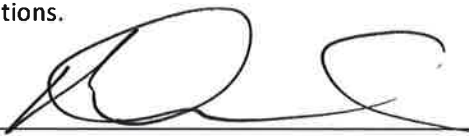
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Certification

As the Legally Responsible Person (LRP), I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.



Keith Wenal
Manager, Health, Safety & Environment

6/25/15
Date

Venoco, Inc. Platform Holly
Facility Name

3 421016951
Waste Discharge Identification (WDID)

CURRENT VERSION OF SWPPP

The SWPPP that follows has been checked and is the current version. Signify below that this plan is current for the corresponding Storm Water Year and log updates here.

SWPPP Year

Date

2015-2016

June 2015

1 Introduction

This document is the Storm Water Pollution Prevention Plan (SWPPP) and the Monitoring Implementation Plan (MIP) for the Venoco, Inc.'s Platform Holly (Holly) located 2 miles off 7979 Hollister Avenue, in Goleta, California (Site or Facility). This document meets the requirements of the California General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit) (Order No. 2014-0057-DWQ). Venoco submitted a Notice of Intent (NOI) to the State Water Resources Control Board (SWRCB) to comply with the General Permit and was issued Waste Discharge Identification (WDID) No. 3 42I016951. A copy of the most recent General Permit is included as Appendix A.

1.1 Organization of the SWPPP and MIP

1.1.1 Section 1 – Introduction

Provides information regarding storm water regulation, the regulatory framework, the requirements of the General Permit, review and revision of the SWPPP, availability of the SWPPP as a public document, and certification requirements of the SWPPP.

1.1.2 Section 2 – Site Description

Describes the Site, the pollution prevention team responsible for compliance with the General Permit and other environmental programs that support compliance with the General Permit.

1.1.3 Section 3 – Definitions and Categories of Non-Storm Water Discharges

Contains the definition and categories for both authorized and unauthorized non-storm water discharges.

1.1.4 Section 4 – Industrial Materials, Potential Pollutant Sources and Associated BMPs

Provides a description of the industrial activities conducted, potential pollutants, and the measures taken to eliminate or reduce the discharge of pollutants from the facility. This section also provides a general discussion of Best Management Practices (BMPs) and identifies those BMPs that are implemented throughout the Site.

1.1.5 Section 5 – Monitoring and Implementation Plan

Describes the objectives to be achieved through visual monitoring and storm water monitoring as well as the procedures for properly collecting samples from all drainage areas that represent the quality and quantity of the Site's storm water discharges to a surface water body during a storm event. Exceedance Response Actions (ERAs), reporting requirements, and recordkeeping are also described.

1.1.6 Section 6 – Annual Comprehensive Facility Compliance Evaluation

Describes the process of conducting an Annual Comprehensive Facility Compliance Evaluation, the results of which must be reported via the Storm Water Multiple Application and Reporting Tracking System (SMARTS) on an annual basis (July 15 of each year) using the Compliance Checklists in SMARTS.

1.1.7 Section 7 – Annual Report

Describes the requirements to be reported in the annual report on SMARTS.

1.2 Storm Water Regulatory Framework

In 1972, the Federal Water Pollution Control Act (known as the Clean Water Act) was amended to effectively prohibit discharge of pollutants to “waters of the United States” from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The U.S. Environmental Protection Agency (USEPA) has delegated administration of the NPDES program within California to the State of California. California's Porter Cologne Act gives the SWRCB and the nine Regional Water Quality Control Boards (Regional Boards) the authority to administer the NPDES program.

The 1987 amendments of the Clean Water Act added Section 402(p), which established the framework for regulating discharges of storm water from industrial activities and municipal separate storm sewer systems. The USEPA's enacting regulations require operators of certain categories of industry, including transportation facilities, to obtain coverage under an NPDES permit for runoff from their facilities to a storm water drainage system or directly to surface waters, particularly if materials or activities are exposed to storm water.¹

The federal regulation implemented in California by the SWRCB is the Industrial General Permit (IGP or General Permit). It was previously issued on April 17, 1997, and had been administratively extended since 2002, until the adoption on April 1, 2014 (Order No. 2014-0057-DWQ) of the General Permit, effective July 1, 2015 (updated IGP). Although often referred to as “storm water regulations” what is actually being regulated by the General Permit is the discharge of pollutants into a storm

¹ These general categories of industry are defined by Standard Industrial Classification (SIC) code in 40 Code of Federal Regulations Section 122.26(b) (14).

water drainage system or a surface water body, whether those pollutants are transported by storm water runoff or some other flow (a non-storm water discharge).

The 2015 General Permit updates the previous permit in the following areas:

- Minimum Best Management Practices (BMPs)
- Conditional Exclusion – No Exposure Certification
- Electronic Reporting Requirements
- Training Expectations and Roles
- Numeric Action Levels (NALs) and NAL Exceedances
- Exceedance Response Actions
- CWA Section 303(d) Impairment
- Design Storm Standards for Treatment Control BMPs
- Qualifying Storm Event (QSE)
- Sampling Protocols
- Sampling Frequency
- Compliance Groups
- Discharges to Ocean Waters

The updated IGP incorporates discharge prohibitions contained in additional water quality control plans, such as the California Ocean Plan (COP), as implemented by the SWRCB. The COP does not apply to the Site because of the design specifications of the facility and its outfall, as detailed in the Site Description and Advanced BMPs sections of this report. More stringent requirements than the IGP may be imposed on the Site by the regulatory agencies in the future.

The Site SWPPP has been updated in the relevant sections to comply with the updated IGP.

1.3 Fundamental Requirements of the General Permit

The following are the fundamental requirements of the IGP. Industrial facility operators must:

- Eliminate unauthorized non-storm water discharges
- Develop and implement storm water pollution prevention plans (SWPPPs) that include BMPs
- Implement minimum BMPs, and advanced BMPs as necessary, to achieve compliance with the effluent and receiving water limitations of the IGP
- Conduct monitoring, including visual observations and analytical storm water monitoring for indicator parameters
- Compare monitoring results for monitored parameters to applicable numeric action levels (NALs)
- Perform the appropriate Exceedance Response Actions (ERAs) when there are exceedances of the NALs

- Certify and submit an Annual Report via the Storm Water Multiple Application and Report Tracking System (SMARTS) on an annual basis (July 15th of each year) using the Compliance Checklists in SMARTS

While the IGP authorizes storm water discharges and conditionally authorizes some non-storm water discharges from facilities, discharges of substances or materials other than storm water and authorized non-storm water discharges are prohibited.² Furthermore, the IGP requires that storm water discharges and authorized non-storm water discharges must be managed such that they do not cause or threaten to cause pollution, contamination, or nuisance. Prohibited non-storm water discharges (also referred to as unauthorized discharges) must be either eliminated or permitted by a separate NPDES permit or Waste Discharge Requirements. Section 3.0 of this SWPPP addresses the topic of non-storm water discharges in greater detail.

1.4 Compliance with the General Permit

Dischargers are required to implement a set of minimum BMPs. Implementation of the minimum BMPs, in combination with any advanced BMPs (BMPs, collectively,) necessary to reduce or prevent pollutants in industrial storm water discharges, serve as the basis for compliance with the IGP's technology-based effluent limitations and water quality based receiving water limitations.

A SWPPP checklist that can be used to identify where in this SWPPP the required information is provided is included as Appendix B.

1.5 Availability of the SWPPP and MIP

The SWPPP and MIP are public documents pursuant to Section 308(b) of the Clean Water Act. The SWPPP and MIP must be retained onsite and made available upon request to a representative of the SWRCB, the Regional Water Quality Control Board, USEPA, or local agency. In addition, the SWPPP and MIP must be uploaded to SMARTS.

1.6 Certification Requirements

The IGP requires that Permit Registration Documents (PRDs) shall be certified and submitted via SMARTS by the Discharger's Legally Responsible Person (LRP). All other documents may be certified and submitted via SMARTS by the LRP or their Duly Authorized Representative (DAR).

² The General Permit requires that authorized non-storm water discharges must meet specified conditions. These conditions are described in Section 3.0.

As it relates to subject Site, PRDs include:

- Notice of Intent (NOI) and Signed Electronic Authorization Form
- Site Map
- SWPPP (The SWPPP uploaded to SMARTS as a PRD should not include a copy of the General Permit)
- Annual fee

The LRP for a corporation is a responsible corporate officer. For the purpose of the General Permit, this means:

- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function
- The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For the Site, the LRP is Keith Wenal, Manager, Health, Safety & Environment. Prior to certification, Mr. Wenal reviewed this SWPPP and MIP and assessed the facility for compliance with the General Permit. Compliance is based on:

- The elimination of unauthorized non-storm water discharges
- The implementation of structural and non-structural BMPs, to reduce or eliminate pollutants in discharges from the Site facility via storm water runoff or authorized non-storm water flows
- Performing visual observations, sampling and analysis of storm water discharges, and reporting to the Regional Water Quality Control Board via SMARTS

Mr. Wenal will ensure that the elements of this SWPPP and MIP are implemented. The executed certification statement appears after the Table of Contents (TOC) of this SWPPP and MIP.

1.7 SWPPP Implementation and Revisions

All Dischargers are required to implement their SWPPP by July 1, 2015 or upon commencement of industrial activity. The Discharger shall:

- Revise their onsite SWPPP whenever necessary
- Certify and submit via SMARTS their SWPPP within 30 days whenever the SWPPP contains significant revision(s)
- With the exception of significant revisions, the Discharger is not required to certify and submit via SMARTS their SWPPP revisions more than once every 3 months in the reporting year

The Site was subject to the previous Industrial Storm Water General Permit. The page following the Certification can be used in the future to list the year any revisions are made to the plan.

2 Site Description

2.1 Facility Description

Holly is an off shore facility located two miles off 7979 Hollister Avenue, Goleta, California 93177 in the Santa Barbara Channel. The Facility produces oil/water emulsion and natural gas that are separately transported via subsea pipelines to the Ellwood Onshore Facility (EOF). Holly operates under the following Standard Industrial Classification (SIC) code:

- 1311 Crude Petroleum and Natural Gas

The primary operations involved on Holly are production, well maintenance and workover operations, primary sedimentation, emulsion shipping, vapor recovery, gas compression and dehydration, and gas lift compression. The produced gas is compressed and then dehydrated on the platform to remove water vapor that could potentially cause pipeline corrosion. A portion of the gas is compressed to high pressure and then used for artificial lift in producing wells. Produced oil/water emulsion and natural gas are transferred separately in 6-inch diameter subsea pipelines to the Ellwood Onshore Facility. The producing wells on Holly currently draw from the Monterey and Rincon formations. The majority of the oil production currently comes from the Monterey Formation. The gas injection well is completed in the Rincon formation and is only used when the EOF is not able to process gas production.

The Site Map provided in Appendix C illustrates key features relevant to the storm water drainage system and the industrial activities conducted onsite. The Site Map is separated into four drawings to depict the four levels on Holly. The four levels of operations are as follows:

- the Drilling Deck
- the Production Deck Mezzanine
- the Production Deck
- the Loading/Landing Deck

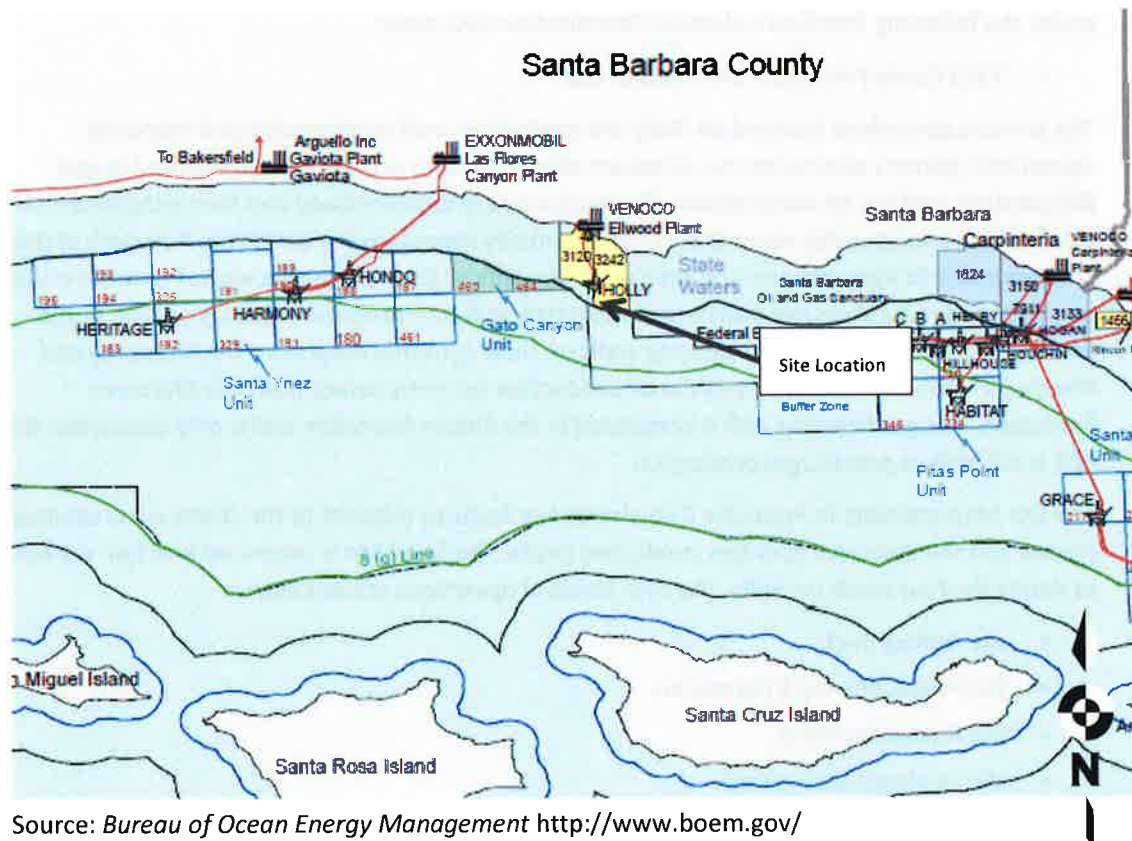
Storm water is collected in a series of drains located on the perimeter and selected interior locations throughout the structure on the platform decks. The majority of equipment and areas of industrial activity are grated to collect any oil, water, or storm water. Water collected in the gutter deck drains and grates flow to the Water Surge Tank (T-1) located on the platform's loading/unloading deck. Under normal rainfall conditions, water collected in T-1 is pumped to the Platform Surge Vessel (V-110), where it is combined with crude production and sent via subsea pipeline to the EOF for processing. Excess water collected in T-1 overflows to the Overflow Tank (T-4). The overflow from T-1 to T-4 is equipped with a dip leg to minimized carryover of floating oil that may have entered the drain system. Under normal conditions, collected water in T-4 is pumped to V-110 for processing at the EOF. In the event an extreme rainfall event, water will overflow from T-4 to the Pacific Ocean. An extreme event is considered the 100-year 1-hour storm event. The Pacific Ocean would be the

receiving water in this case, which is not on the 303(d) list and is not an Area of Special Biological Significance (ASBS). Figure 1 is the Vicinity Map.

Most of the Holly's industrial processes are covered by the decks and not exposed to storm water. The top level, or drill deck, of the platform is completely exposed to storm water. The lower levels of the platform that protrude outward are also exposed to storm water. The entire Site is characterized as one area of industrial activity.

The Venoco facility operates 24 hours a day, 7 days a week.

Figure 1: Vicinity Map



Source: Bureau of Ocean Energy Management <http://www.boem.gov/>
Not To Scale

2.2 Pollution Prevention Team

Mr. John Garnett, Environmental Coordinator leads the Pollution Prevention Team (PPT) and the Operations Manager is responsible for assigning staff to implement the SWPPP and MIP and for the administrative responsibilities associated with the SWPPP and MIP. These responsibilities include:

- Implementing, administering and revising the SWPPP and MIP
- Ensuring that all reporting and sampling requirements are met, including sample reporting and the Annual Report via SMARTs

- Conducting visual observations during sampling events
- Ensuring that sampling kits are prepared and ready for collecting storm water samples
- Conducting monthly visual inspections to ensure that BMPs are appropriate and being implemented consistently throughout the facility
- Conducting the Annual Comprehensive Facility Compliance Evaluation
- Conducting storm water pollution prevention training for facility personnel
- Maintaining the necessary records and files

The PPT has responsibility to collect storm water samples in accordance with the MIP during standard operating hours.

In addition to the personnel listed above, other employees at the facility are trained in storm water pollution prevention topics and play an important role in the detection and prevention of pollution.

2.3 Other Relevant Facility Plans

In addition to this SWPPP, the Site has other existing relevant plans that complement the goal of reducing and preventing pollutant discharges. These plans include:

- Venoco Spill Prevention, Control, and Countermeasures Plan (SPCC) Plan

These plans allow for an immediate and organized response to a release so that the potential for pollutants (i.e., spilled material) reaching the storm water drainage system is minimized. Copies of these plans are available onsite.

2.4 Significant Leaks and Spills

No significant industrial materials have been spilled, leaked or otherwise accidentally released in significant quantities to the Site's storm water conveyance system within the previous five-year period.

Preventative measures taken to ensure spills or leaks of the material do not occur include the policies, plans, and procedures in place at the facility provide that even small spills and leaks are contained and cleaned-up as quickly as possible. If the clean-up of spilled or leaked material is not completed prior to a forecasted precipitation event, precautions are taken to assure that precipitation and runoff do not contact the remaining spilled or leaked material.

3 Definition and Categories of Non-Storm Water Discharges

A non-storm water discharge is any discharge or flow to a storm water drainage system that is not composed entirely of storm water runoff.

3.1 Authorized Non-Storm Water Discharges

The General Permit provides that certain types of non-storm water discharges are authorized when specified conditions are met. Examples of such non-storm water discharges conditionally authorized by the General Permit include:

- Fire-hydrant and fire prevention response system flushing
- Potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems
- Drinking fountain water and atmospheric condensate including refrigeration, air conditioning, and compressor condensate
- Irrigation drainage and landscape watering provided all pesticides, herbicides and fertilizers have been applied in accordance with the manufacturer's label
- Uncontaminated natural springs, groundwater, foundation drainage, footing drainage
- Seawater infiltration where the seawater is discharged back into the source
- Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains)

These non-storm water discharges are authorized only if they meet the following conditions:

- The discharges are not in violation of any Regional Water Board Water Quality Control Plans (Basin Plans) or other requirements, or statewide water quality control plans or policies requirement
- The discharges are in compliance with local agency ordinances and/or requirements
- BMPs are specifically included in the SWPPP to (1) prevent or reduce the contact of authorized non-storm water discharges with materials or equipment that are potential sources of pollutants, and (2) reduce, to the extent practicable, the flow or volume of non-storm water discharges
- The discharges do not contain quantities of pollutants that cause or contribute to an exceedance of a water quality standard

- Discharges of pollutants in authorized non-stormwater discharges are reduced or prevented in a manner that reflects the best industry practice considering technological availability and economic practicability and achievability
- The storm water monitoring program includes monthly visual inspections of each non-storm water discharge and its sources to ensure that BMPs are being implemented and are effective
- The NSWDS cannot cause erosion, carry other pollutants, be prohibited by the local MS4, or require a separate NPDES Permit from the RWQCB
- The discharges are reported and described in the facility's Annual Report submitted via SMARTS

3.2 Unauthorized Non-Storm Water Discharges

Except for non-storm water discharges that are specifically authorized in the General Permit, as listed above, discharges of liquids or materials other than stormwater, either directly or indirectly to the waters of the United States, are prohibited unless authorized by another NPDES permit. Typical examples of prohibited non-storm water discharges, which are considered wastes, include but are not limited to:

- Industrial process water
- Floor wash water
- Waste container drainage
- Vehicle or equipment rinse or wash water
- Building or pavement rinse or wash water
- Spills, leaks, and dumping

At the Site, such wastes must be contained and properly disposed so that unauthorized non-stormwater discharges are eliminated. Monthly visual observations will be conducted according to the General Permit, as detailed in the MIP of this SWPPP for NSWDS, unauthorized NSWDS, and sources to ensure adequate BMP implementation and effectiveness.

4 Industrial Materials, Potential Pollutant Sources and Associated BMPs

4.1 List of Industrial Materials

Table 1 provides a list of the industrial materials handled at the facility, and the locations where each material is stored, received, shipped and handled, as well as the typical quantities and handling frequency.

Table 1: List of Industrial Materials

Material	Storage Location	Receiving and Shipping Location	Handling Location	Quantity Stored	Frequency
Automotive Lead-Free Gasoline	Lower Boat Deck / Boat Landing	Brought onsite by Operations Used onsite	Lower Boat Deck/ Spill Response Boat	28 gallons	24/7
Rustoleum Paint	Lower Boat Deck / Boat Landing	Brought onsite by Operations Used onsite	Production Deck/ Paint Locker Storage	10 gallons	24/7
Baker - Defoamer, DF091	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	430 gallons	24/7
Baker - Scale Inhibitor, SCW4056	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	430 gallons	24/7
Baker – Corrosion Inhibitor, CRW9110	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	430 gallons	24/7
Baker - Demulsifier, DMO100	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	980 gallons	24/7
Baker - Water Clarifier RBW777	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	200 gallons	24/7
Baker - Corrosion Inhibitor, CG049	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	240 gallons	24/7
Baker - Xylene, PFR83	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	430 gallons	24/7

Material	Storage Location	Receiving and Shipping Location	Handling Location	Quantity Stored	Frequency
Baker - Corrosion Inhibitor, CRW9070	Production Deck	Received by Supply Boat / Used onsite	Chemical Injection - NW Corner	700 gallons	24/7
Baker - X-CIDE, Industrial Bactericide	Production Deck	Received by Supply Boat / Used onsite	Production Deck	50 gallons	24/7
Compressed Methane	Production Deck	Received by Supply Boat / Used onsite	Production Deck	68 ft ³	24/7
Compressed Hydrogen	Production Deck	Received by Supply Boat / Used onsite	Production Deck	16 ft ³	24/7
Breathing Air	Production Deck	Generated onsite and onsite	Production Deck	1,824 ft ³	24/7
Compressed Nitrogen	Production Deck	Received by Supply Boat / Used onsite	Production Deck	304 ft ³	24/7
Compressed Nitrogen	Production Deck	Received by Supply Boat / Used onsite	Production Deck	1,824 ft ³	24/7
Triethylene	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	350 gallons	24/7
Diesel fuel #2	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Diesel Storage, T-111, Crane Pedestal	1,500 gallons	24/7
Chevron DELO 400 Multigrade 15-40w Lube Oil	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	55 gallons	24/7
General Petroleum, DTE 105 Lube Oil	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	550 gallons	24/7
Chevron DELO 400 Multigrade 15-40w	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	330 gallons	24/7
Chevron HDAX SAE 40	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	275 gallons	24/7
Chevron Gear Compound EP ISO 320	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	55 gallons	24/7
Caterpillar Antifreeze	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	110 gallons	24/7
Compressed Nitrogen	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	3,648 ft ³	24/7
Mineral Spirits	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	110 Gallons	24/7
Baker - Corrosion	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	50 gallons	24/7

Material	Storage Location	Receiving and Shipping Location	Handling Location	Quantity Stored	Frequency
Baker - Cleaner, CLW3075	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	50 gallons	24/7
Baker - Corrosion	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	50 gallons	24/7
Methanol	Compressor / Drill Deck	Received by Supply Boat / Used onsite	Compressor / Drill Deck	55 gallons	24/7

4.2 Description of Potential Pollutant Sources

Based on the industrial materials and equipment listed above, the entire platform is a potential source of stormwater pollution. Potential sources of pollutants have been identified by deck level for contaminating storm water runoff at the Facility. As identified in Figure 2, the Site is designed to contain potential discharges to specific areas of industrial activity to minimize discharge. Additionally, with periodic inspection and maintenance along with good housekeeping practices, potential storm water pollution from these sources will be minimized or eliminated.

4.2.1 Industrial Processes

At the Venoco Holly facility, there are four levels of industrial processes:

- the Drilling Deck
- the Production Deck Mezzanine
- the Production Deck
- the Loading/Landing Deck

The Drilling Deck is the highest level of the platform and consists of a compressor area, lay down storage area, and a drilling area. The compressor area consists of a vapor recovery unit, white superior compressor unit, Ingersoll rand compressor unit, and a glycol regeneration unit. Storm water collected in the compressor area is either diverted into deck drains located throughout the area, or toward the gutter deck drains. Water collected from the deck drains is collected in Tank T-1. The lay down storage area consists of bulk chemical storage, oil field debris, and waste oil and solvent storage. A detailed table of all significant materials found in the lay down storage area is presented in Table 1. The drilling area is consists of components of the drilling process such as drilling mud, pumps, agitators, and hydraulics. The drilling area contains an active pit that contains the mud agitator, shakers, and mud pump blowers. The reserve pit contains the mud agitators, and additional generators. Storm water collected in the drilling area is diverted toward the gutter deck drain and flows by gravity into Tank T-1.

The Production Deck Mezzanine is the intermediate level between the Drilling Deck and the Production Deck. This level consists of the production office, electrical switchgear building, lab, well bay, chemical injection, and tank storage. Surge tanks stored on this level include the V-110 oil surge tank, V-109 water surge tank, and V-108 monterey group separator. This level also contains de-gassers, stack scrubbers, and air receivers. This level is covered under the Drilling Deck and is not exposed to storm water.

The Production Deck level, similarly to the Mezzanine Level, consists of production office, electrical switchgear building, lab, well bay, chemical injection, and tank storage. Surge tanks stored on this level include the V-107 monterey group separator. The Production Deck also consists of three water injection pumps and a shipping pump. The majority of the Production Deck is covered and not exposed to storm water. There are gutter deck drains that collect storm water from areas that protrude out. Stormwater collected in the deck drains flow by gravity into Tank T-1.

The Loading/Landing Deck is the lowest level the Platform. This level consists of the T-1 drain sump tank, T-4 overflow sump tank, and the omni-pure waste water treatment unit. The omni-pure waste water treatment system is used to treat water produced from bathrooms and sinks. Treated water is then discharged into the Pacific Ocean.

Storm water collected from the above levels is diverted into Tank T-1. In the event of a severe storm event, storm water overflows into Tank T-4, and if required will discharge to the Pacific Ocean.

4.2.2 Material Handling and Storage Areas

Material handling and storage is conducted on all levels of the Platform. Table 1 provides the location and type of chemicals being handled and stored on Holly.

Materials are stored and handled indoors or on lower levels of the Platform whenever possible, to minimize exposure to precipitation. Hazardous materials, chemicals, and waste are stored in tanks or vessels to eliminate exposure to storm water. Additionally, standard operating procedures require the immediate cleanup of any spills or leaks, thereby minimizing the potential of any impacts to storm water from these areas.

Common refuse and oil field debris is typically stored in trash bins prior to disposal. Leaking equipment oil pans, broken hydraulic lines, etc. also have the potential to expose storm water runoff to pollutants. In case of these spills or leaks, the responsible Site personnel are trained to clean up the spills or leaks.

The Drilling Deck contains the lay down & storage area which contains totes of diesel fuel and chemicals, and drilling equipment. Chemical totes and drums of lube oil are also found on the Production Deck. Waste generated from the Platform is stored on the Production Deck. Totes and tanks are brought to the Platform by boat and transferred to the platform by the Crane Pedestal on the Drilling Deck.

Material storage includes in equipment and containers. Equipment that leak fluids are repaired as soon as practicable. The diesel Emergency Generator on the Production Deck is fueled by the tank utilizing a fixed hard pipe line. Depending on need, temporary portable diesel air compressors are used for maintenance on all the decks. Almost all the equipment is cleaned and maintained on the Platform. On average, equipment on the Platform is cleaned and maintained once per month.

There are several storage containers for crude oil, drilling mud, glycol, and lube oil throughout the platform. All of the stored materials are stored within vessels, tanks, or bins to prevent exposure to storm water. All chemical containing storage tanks are stored in grates to collect any oil/water leaks and storm water run-off. All storage areas will be covered under roof when possible.

Where practical, the Facility minimizes exposure to storm water runoff by storing industrial materials and handling materials under a roof or in a contained area. Waste bins stored outside are equipped with lids to prevent exposure to storm water.

The potential impact to storm water comes from the unloading of listed materials to the different storage areas. Only properly trained employees are allowed to transfer industrial materials. Venoco also maintains spill prevention equipment for spill response in addition to facility-specific BMPs to prevent discharge to storm water.

4.2.3 Dust and Particulate Generating Activities

Unpaved areas, as well as paved areas that are not maintained, can be a potential source of distributing pollutants in storm water discharges. Precipitation can create potential erosion problems causing sediments to wash into the receiving water. No paved or unpaved areas are present at the site due to the structural nature of the facility. Facility surfaces are maintained to minimize particulate generation (e.g., peeling paint) and good housekeeping (e.g., drain cleanout) is implemented to prevent discharge to stormwater.

4.2.4 Significant Spills and Leaks

"Significant spills" are defined by the United States Environmental Protection Agency (USEPA) as releases that occur within a 24-hour period of toxic or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act and Section 302 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). "Significant spills" are also defined in the NPDES to include all of the above and "oil". "Oil" is defined in the Code of Federal Regulations (CFR) at 40 CFR 109.2 "Oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged soil". Reportable quantities are predefined amounts of substances in pounds, gallons, or other units and are listed in 40 CFR Parts 117 and 302. Releases include any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of material to the environment.

The General Permit requires that any significant spills or leaks that occurred during the five-year period be identified in the SWPPP. This includes toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on USEPA Form R and oil and hazardous substances in excess of reportable quantities. Materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges within the previous 5 years must be identified and described. Venoco has reportedly not experienced any significant spills or leaks within the last 5 years.

In the event of a spill or leak, Venoco will follow its Spill Prevention, Control and Countermeasures Plan. Spills and/or leaks of significant materials can occur outdoors during loading, unloading, and processing within the facility. In the event of a leak and/or spill, personnel will immediately assess the situation and take the necessary response action. Personnel are trained to respond to small leaks and spills, that would not ordinarily leave the property and for which outside help is not needed. The source of the leak is determined and stopped using brooms and absorbent materials. Spill kit response materials are located throughout the facility. Spent sorbent materials are collected and placed in appropriate containers for offsite disposal. For larger spills, the abatement contractor for spill response is contacted.

4.2.5 Non-Storm Water Discharges

Unauthorized non-stormwater discharges (NSWDs) such as from washing of equipment and structures, have been eliminated by training regarding standard policies.

The authorized NSWDs at the facility consist of the following:

- Fire hydrant operation and system maintenance. Fire hydrant operation and system maintenance occurs as needed throughout the facility
- Uncontaminated atmospheric condensates. Regular equipment service and cleaning is conducted to minimize flow and contact with industrial activities

Proper measures are implemented for these authorized NSWDs to minimize flow, reduce pollutant content/contact, are monitored monthly and reported via SMARTS.

4.2.6 Erodible Surfaces

The site is a structure and has no erodible surfaces.

4.3 Assessment of Potential Pollutant Sources

Table 2 summarizes the potential pollutant sources throughout the four deck levels of activity and the associated BMPs implemented to manage them. Potential pollutants that can potentially enter storm water run-off and other discharges would result from possible leaks from equipment operation and during equipment maintenance, such as:

- Hydrocarbons (oil/grease leaks from outdoor equipment, waste oil)
- Chemicals (chemical tanks, chemical containing equipment)
- Accidental Spills (service and maintenance of equipment)

Training is required to ensure BMPs are implemented to limit the potential pollutants entering the storm water discharges from the facility.

Table 2: Identification of Potential Pollutant Sources and List of Current BMPs

Equipment Type	Number Present Onsite	Schedule Maintenance	BMP for Equipment Usage
Mud Agitator	5	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Water Pump	2	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Air Compressor	2	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Draw Works Blower	1	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Trip Tank	1	Daily	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Generator	3	Daily	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Mud Pump Blower	2	Weekly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Mud Pump	2	Weekly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Charge Pump	2	Weekly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance

Equipment Type	Number Present Onsite	Schedule Maintenance	BMP for Equipment Usage
Shaker	2	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Vapor Recovery Unit	2	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
White Superior Compressor Unit	1	Daily	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Condenser	1	Annual	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Cooling Fan	2	Annual	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
After Scrubber	1	Annual	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Absorber	1	Annual	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Direct Contact Cooler	1	Annual	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Ingersol Rand Compressor Unit	1	Daily	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Glycol Regeneration Unit	1	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Reserve Pit	2	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance
Crane	1	Monthly	Good Housekeeping, Spill Prevention, Covered Operations, Secondary Containment, Preventive Maintenance

4.4 Storm Water Best Management Practices

4.4.1 What Are BMPs?

BMPs are the practices, procedures, policies, prohibitions, schedules of activities, structures or devices that are implemented to prevent or minimize pollutants coming in contact with precipitation, storm water runoff, or non-storm water flows. BMPs are also structures or devices that remove pollutants from storm water runoff before the runoff leaves the facility and enters a storm water drainage system or surface water. Therefore, BMPs are often categorized as either “source control” BMPs or “treatment control” BMPs.

Source control BMPs include all types of measures designed to prevent pollution at the source, that is, to prevent storm water from contacting pollutants in the first place. Source control BMPs are generally simple, low-maintenance, cost-effective and are broadly applicable. They may be categorized as either non-structural or structural. Good housekeeping is an example of a non-structural source control BMP; a canopy is an example of a structural source control BMP.

Treatment control BMPs are methods of treating storm water runoff to remove pollutants and are frequently more costly to design, install, and operate than source control BMPs. Treatment control BMPs typically do not remove all pollutants from storm water runoff and should not be regarded as disposal systems. More importantly, treatment control BMPs are typically not as effective as source control BMPs, and the effectiveness is highly dependent on regular maintenance. Nevertheless, they can be appropriate and effective under certain conditions.

The IGP requires all Dischargers to implement minimum BMPs, as well as any advanced BMPs that are necessary to adequately reduce or prevent pollutants in discharges. Further information regarding BMPs is discussed in the sections below.

4.4.2 Minimum BMPs

Minimum BMPs are generally non-structural; non-structural BMPs generally consist of processes, prohibitions, procedures, and schedules of activities that prevent pollutants associated with industrial activity from contacting storm water discharges and authorized non-storm water discharges. These are considered low technology, cost-effective measures.

4.4.2.1 Good Housekeeping

Good housekeeping practices include activities that are intended to maintain a clean site and keep equipment in good working order to prevent storm water quality problems from occurring. Daily cleanup and inspections are the most effective means of achieving good housekeeping. For the most part, good housekeeping is a day-to-day activity that does not require a large expenditure of time or expense, and should be implemented on an ongoing basis. Good Housekeeping BMPs required to be implemented are listed in Table 3.

Table 3: Good Housekeeping BMPs

General Permit Required BMPs	Facility Implementation
Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs	<ul style="list-style-type: none"> • Complete monthly visual inspections during daylight hours of scheduled facility operating hours and on days without precipitation • Discharge points are inspected and cleaned • Containment areas are inspected and cleaned • Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly
Minimize or prevent material tracking	<ul style="list-style-type: none"> • Not applicable
Minimize dust generated from industrial materials or activities	<ul style="list-style-type: none"> • Minimize bulk material handling and storage • Receive containerized material to minimize dust • Clean up debris and maintain surfaces regularly, as needed
Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible	<ul style="list-style-type: none"> • In the event outdoor areas need to be washed, all wash water will be contained, collected, and properly disposed of • Employee training
Cover all stored industrial materials that can be readily mobilized by contact with storm water	<ul style="list-style-type: none"> • Materials are stored inside or under areas with structural canopies/covers • As needed, temporary covers/tarps are deployed
Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water	<ul style="list-style-type: none"> • All non-solid industrial materials are stored in adequate, non-leaking, covered containers/tanks • Facility conducts monthly inspections
Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system	<ul style="list-style-type: none"> • In the event outdoor areas need to be washed, all wash water will be contained, collected, and properly disposed of
Minimize storm water discharges from non-industrial areas (e.g., storm water flows from employee parking area) that contact industrial areas of the facility	<ul style="list-style-type: none"> • Facility is designed to prevent non-industrial area discharges from contact with industrial areas
Minimize authorized NSWDS from non-industrial areas (e.g., potable water, fire hydrant testing, seawater infiltration, etc.) that contact industrial areas of the facility	<ul style="list-style-type: none"> • Facility is designed to prevent non-industrial area discharges from contact with industrial areas

4.4.2.2 Preventive Maintenance

Preventive Maintenance BMPs include regular inspections and maintenance intended to minimize storm water pollution by performing maintenance activities before problems arise. Equipment failures or equipment that functions poorly may result in the discharge of pollutants to the storm water drainage system. Therefore, to reduce the likelihood of breakdown or failure, the facility has a preventive maintenance schedule for major equipment that includes inspection and replacement or repair of fluids (e.g., hydraulic, lubricating, cooling), greases, seals, hoses, filters, pressure gauges, piping, etc. Equipment maintenance and repair is done indoors/under cover/with containment, as feasible. Preventative Maintenance BMPs required to be implemented are listed in Table 4.

Table 4: Preventative Maintenance BMPs

General Permit Required BMPs	Facility Applicability
Identification and inspection of equipment and systems used outdoors that may spill or leak pollutants	<ul style="list-style-type: none"> Inspection requirements are applicable for all outdoor equipment
Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks	<ul style="list-style-type: none"> Regular monitoring and inspections are conducted to inspect equipment and systems and detect any leaks.
Establish an appropriate schedule for maintenance of identified equipment and systems	<ul style="list-style-type: none"> All equipment maintenance and repairs at the facility are tracked for preventative maintenance and work orders are issued, as needed, by the Operations Manager Notes are made if the item has been corrected to provide follow-up for the item
Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks	<ul style="list-style-type: none"> The Operations Manager assigns personnel with skill set appropriate for the repair, or appropriate certified mechanic is contacted for the work Identified maintenance is completed prior to the next anticipated storm event or scheduled for as soon as practicable thereafter

4.4.2.3 Spill and Leak Prevention and Response

Spill clean-up can be labor-intensive and costly, involving expenses to contain the spill, collect the spilled substance, dispose of materials properly, and to file reports with regulatory agencies, not to mention possible monetary fines. Spills and leaks are some of the most significant sources of water pollution and are, in most cases, avoidable. Spill prevention, control, and cleanup apply to all materials and wastes, not only hazardous substances. The toxic water quality effects from spills of hazardous substances (i.e., acids, oils, greases, fuels, solvents) are commonly understood. However, non-hazardous materials (i.e., biodegradable soaps, litter, and debris, among others) can also greatly impact water quality. Spill and Leak Prevention and Response BMPs required to be implemented are listed in Table 5.

Table 5: Spill and Leak Prevention and Response BMPs

General Permit Required BMPs	Facility Applicability
Establish procedures and/or controls to minimize spills and leaks	<ul style="list-style-type: none"> • Spill response procedures are identified in the facility's SPCC Plan • Containers are marked and labeled according to their contents and hazards. If specific handling or storage precautions are required, they are included on the label. • Spills are cleaned up immediately to prevent contamination of storm water. • Leaking and dripping fluids are collected in drip pans or other containers. When disconnecting hoses and fittings, drip pans are used to collect liquids. • Fluids are promptly transferred to their proper containers. Full drip pans or other open containers are not left lying around the Facility. • Liquids are never poured into floor drains, sinks, outdoor storm water drains, or sewer connections without proper approval. • Oily substances are cleaned up using dry absorbents. • Greasy rags, oil filters, and oily debris are disposed of in accordance with hazardous material disposal regulations. • Waste materials (such as spent solvent and used oil) are labeled and recycling/disposal is tracked.
Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system	<ul style="list-style-type: none"> • Procedures to minimize the discharge of industrial materials generated through spill/leaks are identified in the facility's SPCC Plan • Spilled or leaked industrial materials are cleaned promptly and disposed of properly • A spill response contractor is contracted with the Site, on-call for spill response
Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures	<ul style="list-style-type: none"> • Spill kits are placed in areas where fluids are stored or in areas where activities may result in a spill • Spill kits are maintained as detailed in the Site's SPCC Plan
Identify and train appropriate spill and leak response personnel	<ul style="list-style-type: none"> • Appropriate spill response personnel receive annual training

4.4.2.4 Material Handling and Waste Management

Materials handling and storage BMPs relate to controlling the potential for leaks, spills and losses of materials delivered, used, and stored at a facility. Spills and leaks of materials can accumulate in soils or on surfaces and be carried away in storm water runoff or authorized non-storm water discharges. Material Handling and Waste Management BMPs required to be implemented are listed in Table 6.

Table 6: Material Handling and Waste Management BMPs

General Permit Required BMPs	Facility Applicability
Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event	<ul style="list-style-type: none"> To the extent practicable, all material handling is conducted in a covered area, with containment In addition, facility will limit licensed transporter contact with solid/hazardous wastes during storm events
Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water	<ul style="list-style-type: none"> Materials are stored in enclosed storage containers/covered, as feasible
Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use	<ul style="list-style-type: none"> Hazardous wastes are stored in a covered area with secondary containment Industrial materials are kept covered, where feasible Temporary covers/tarps are deployed to keep containers under cover during storm events Lids are kept closed on solid waste dumpsters
Divert run-on and storm water generated from within the facility away from all stockpiled materials	<ul style="list-style-type: none"> Not applicable
Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures	<ul style="list-style-type: none"> Facility has appropriate spill kits to clean up any spills that may occur For larger spills, the abatement contractor is called in to respond
Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes	<ul style="list-style-type: none"> Complete monthly visual inspections during daylight hours of scheduled facility operating hours and on days without precipitation Regularly remove or cover unused surplus industrial materials or equipment

4.4.2.5 Erosion and Sediment Controls

Unpaved areas and paved areas that are not maintained can be potential source of distributing pollutants in stormwater discharges. Erosion and Sediment Controls BMPs required to be implemented are listed in Table 7.

Table 7: Erosion and Sediment Controls BMPs

General Permit Required BMPs	Facility Applicability
Implement effective wind erosion controls	<ul style="list-style-type: none"> Not applicable
Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event	<ul style="list-style-type: none"> Not applicable
Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site	<ul style="list-style-type: none"> Not applicable
Divert run-on and storm water generated from within the facility away from all erodible materials	<ul style="list-style-type: none"> Not applicable
If sediment basins are implemented, ensure compliance with the design storm standards identified in the General Permit	<ul style="list-style-type: none"> Not applicable

4.4.2.6 Employee Training Program

Mr. Garnett, Environmental Coordinator, coordinates training related to storm water management on at least an annual basis to inform those with specific responsibilities in this SWPPP and MIP what their responsibilities are and how to accomplish those tasks, including implementation of BMPs. Additionally, general awareness training is provided annually to all employees whose activities may impact storm water discharges. The purpose of this training is to educate workers on activities that can impact storm water discharges and to help in the implementation of BMPs. The training is documented and the training records are kept for a period of no less than 5 years. Employee Training Program BMPs required to be implemented are listed in Table 8.

Table 8: Employee Training Program BMPs

General Permit Required BMPs	Facility Applicability
Ensure that all team members implementing the various compliance activities of this General Permit are properly trained to implement the requirements of this General Permit, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations and monitoring activities ³	<ul style="list-style-type: none"> SWPPP team members are annually trained on their specific SWPPP responsibilities, including, as needed, representatives of onsite contractors
Prepare or acquire appropriate training manuals or training materials	<ul style="list-style-type: none"> An appropriately trained individual prepares the training materials
Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive	<ul style="list-style-type: none"> General awareness training is provided annually to all employees whose activities may impact storm water discharges
Provide a training schedule	<ul style="list-style-type: none"> This training typically occurs in September
Maintain documentation of all completed training classes and the personnel that received training in the SWPPP	<ul style="list-style-type: none"> The training is documented and the records are kept for a period of no less than 5 years Records of member training are to be maintained in the Corporate Office

4.4.2.7 Quality Assurance and Recordkeeping

The General Permit includes quality assurance and recordkeeping as a minimum BMP to ensure that management procedures are designed and permit requirements are implemented by appropriate staff. Quality Assurance and Recordkeeping BMPs required to be implemented are listed in Table 9.

Table 9: Quality Assurance and Recordkeeping BMPs

General Permit Required BMPs	Facility Applicability
Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan	<ul style="list-style-type: none"> PPT Team tracks implementation of SWPPP
Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP	<ul style="list-style-type: none"> All inspections forms and/or requirements are maintained in the Corporate Office
Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of 5 years	<ul style="list-style-type: none"> The BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of 5 years and are maintained onsite

³ If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP.

4.4.3 Advanced BMPs

Advanced BMPs are generally structural. In addition to the minimum required non-structural BMPs listed above, structural BMPs shall, to the extent feasible, be implemented and maintained to reduce or prevent discharges of pollutants in stormwater in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

Advanced BMPs may include one or more of the following:

- Exposure Minimization BMPs
- Storm Water Containment and Discharge Reduction BMPs
- Treatment Control BMPs
- Other Advanced BMPs

4.4.3.1 Exposure Minimization BMPs

Exposure Minimization BMPs required to be implemented are listed in Table 10.

Table 10: Exposure Minimization BMPs

General Permit Required BMPs	Facility Applicability
These include storm resistant shelters (either permanent or temporary) that prevent the contact of storm water with the identified industrial materials or area(s) of industrial activity	<ul style="list-style-type: none"> • Facility is designed with levels of cover that provide exposure minimization, such that potential pollutants, equipment, materials, and wastes are stored under cover, inside in storage containers with secondary containment, in storage cubes, on pallets/under storage canopies, as feasible

4.4.3.2 Storm Water Containment and Discharge Reduction BMPs

Storm Water Containment and Discharge Reduction BMPs are such BMPs that divert, infiltrate, reuse, contain, retain or reduce storm water runoff. Storm water containment and discharge reduction BMPs to be implemented at the Site are listed in Table 11.

Table 11: Storm Water Containment and Discharge Reduction BMPs

General Permit Required BMPs	Facility Applicability
BMPs that divert, infiltrate, reuse, contain, retain or reduce storm water runoff	<ul style="list-style-type: none"> • Facility is designed with berms and drains to channel stormwater away from pollutant sources and to a single stormwater containment area for discharge reduction (T-1/V-110) and sampling/discharge, as needed (T-4) • Secondary containment structures are in place around storage and processing equipment so that accumulated water can be diverted/infiltrated/contained for proper disposal, as needed • Liquid materials and hazardous waste being accumulated for transfer off-site are stored in secondary containment berms or storage sheds or alternate cover, with secondary containment • Industrial operations are conducted under cover/in contained areas • Run-off is routed to divert contact with industrial activities

4.4.3.3 Treatment BMPs

Treatment control BMPs include one or more mechanical, chemical, biologic, physical, or any other treatment process technology and are sized to meet the treatment control design storm standard. The Treatment BMPs for the Site are listed in Table 12.

Table 12: Treatment BMPs

General Permit Required BMPs	Facility Applicability
Treatment technology implemented according to design standard in General Permit	<ul style="list-style-type: none"> • Physical separation of stormwater, in the overflow from T-1 to T-4 that is equipped with a dip leg to minimized carryover of floating oil • Omni-pure system for treatment of facility sanitary systems prior to discharge, preventive maintenance of the system is required

5 Monitoring and Implementation Plan

5.1 Objectives/Weather & Rain Event Tracking

The IGP requires Dischargers to develop and implement a facility-specific monitoring program. Monitoring is defined as visual observations, sampling and analysis. The monitoring data will be used to determine:

- Whether BMPs addressing pollutants in industrial storm water discharges and authorized NSWDs are effective for compliance with the effluent and receiving water limitations of the IGP
- The presence of pollutants in industrial storm water discharges and authorized NSWDs (and their sources) that may trigger the implementation of additional BMPs and/or SWPPP revisions
- The effectiveness of BMPs in reducing or preventing pollutants in industrial storm water discharges and authorized NSWDs

A monitoring plan has two major components that are intended to aid in the implementation of the SWPPP: (1) monthly visual observations, and (2) analytical monitoring. Visual observations provide Dischargers with immediate information indicating the presence of many pollutants and their sources. Dischargers must implement timely actions and revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP. Analytical monitoring provides an additional indication of the presence and concentrations of pollutants in storm water discharge. Dischargers are required to evaluate potential pollutant sources and corresponding BMPs and revise the SWPPP appropriately when specific types of Numeric Action Levels (NAL) exceedances occur.

The team member(s) assigned to conduct the monitoring requirements is the Operations Staff, who have responsibility to conduct visual observations and collect storm water samples, as needed, in accordance with the MIP during their shift. Designated personnel will provide supervision and act as a backup storm water sampler when necessary.

Stormwater sampling and visual observations will be conducted during Qualified Storm Events (QSEs). A QSE is defined as any precipitation event that produces a discharge for at least one drainage area and is preceded by 48 hours with no discharge from any drainage area.

5.2 Visual Observations

5.2.1 Monthly Visual Observation Procedures

Monthly visual observations are to be performed at least once per calendar month; the Discharger shall visually observe each drainage area for the following:

- The presence or indications of prior, current, or potential unauthorized NSWDS and their sources
- Authorized NSWDS, sources, and associated BMPs to ensure compliance with the General Permit
- Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants

The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation.⁴ The Discharger shall provide an explanation in the Annual Report for uncompleted monthly visual observations.

Visual observations are conducted at the Potential Pollutant Sources located on Table 2.

5.2.2 Sampling Event Visual Observation Procedures

Sampling event visual observations shall be conducted by Venoco at the same time sampling occurs at the discharge location specified below. Venoco shall visually observe the discharge of storm water associated with industrial activity, and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants. In the event that a discharge location is not visually observed during the sampling event, Venoco shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location. Venoco shall provide an explanation in the Annual Report for uncompleted sampling event visual observations.

Because the facility is designed to channel runoff away from pollutant sources and to a single stormwater containment area for discharge reduction (T-1/V-110) and sampling/discharge, visual observations will be conducted at the following contained stormwater discharge sampling location at the Site:

- Sample # 1 – T-4

⁴ The Site is operational 24 hours a day, 7 days a week.

5.2.3 Visual Observation Response Procedures and Record Keeping

The Discharger shall revise BMPs, as necessary, when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP. The Discharger shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

The Discharger shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.

5.3 Sampling and Analysis

5.3.1 Qualifying Storm Event

A Qualifying Storm Event (QSE) is a precipitation event that:

- Produces a discharge for at least one drainage area
- Is preceded by 48 hours with no discharge from any drainage area

The Discharger shall collect and analyze storm water samples from two QSEs within the first half of each reporting year (July 1 to December 31), and two QSEs within the second half of each reporting year (January 1 to June 30).

Except as provided by, Representative Sampling Reduction, samples shall be collected from each drainage area at all discharge locations. The samples must be:

- Representative of storm water associated with industrial activities and any commingled authorized NSWDS; or,
- Associated with the discharge of contained storm water

Samples from each discharge location shall be collected within 4 hours of:

- The start of the discharge
- The start of facility operations if the QSE occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night for facilities with day-time operating hours). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe.

5.3.2 Storm Water Sampling Location

The IGP requires that samples be collected from all drainage areas that represent the quality and quantity of the facility's storm water discharges to a surface water body (specifically to "waters of the United States") from a storm event. Because the facility is designed to contain stormwater in process areas and route all runoff to T-4, in the event a discharge occurs, there is one sampling location for the facility:

- Sample # 1 – T-4

5.3.3 Storm Water Sample Parameters

All industrial facilities with coverage under the IGP are required to analyze storm water samples for total suspended solids (TSS), pH, and oil and grease (O&G). Additional parameters may be analyzed as identified by the Discharger on a facility-specific basis that serve as indicators of the presence of all industrial activities. These additional parameters may be modified (added or removed) in accordance with any updated SWPPP.

Industrial facilities are also required by the IGP to have storm water samples analyzed for specified potential constituents based upon the facility Standard Industrial Classification (SIC) code as provided in Table 1 of the IGP. The SIC code for the facility does not require additional storm water potential constituents to be analyzed.

Based upon the SIC code and an evaluation of the types and quantities of industrial materials used at the facility, location and use of industrial materials, and the BMPs implemented, storm water samples collected at the facility are analyzed for the parameters listed in Table 13.

The storm water samples are collected and submitted to a laboratory certified by the State of California to perform these analyses.

5.3.4 Sampling Procedures and Equipment

5.3.4.1 Grab Sampling

During each rainy season, grab samples are collected at the specified sampling locations for at least four storm events (two from January to June and two from July to December).

A grab sample is an individual sample collected at one specific site at one point in time.

Analysis of a grab sample provides a snapshot of storm water quality. All of the sample bottles provided by the analytical laboratory for the sampling location should be contained within a separate sample cooler. The facility staff responsible for collecting storm water samples (member of the pollution prevention team) should have an equipment box that contains all the equipment and materials necessary for storm water sample collection, other than the sample bottles provided by the analytical laboratory.

5.3.4.2 Grab Sampling Procedures

The grab sampling procedures are as follows:

- The appropriate number of sample containers, sample container labels, blank chain- of-custody forms, and sample preservation instructions are obtained from the analytical laboratory.
- The testing laboratory will receive samples within 48 hours of the physical sampling. The samples are either delivered to or picked up by the laboratory.
- Only the sample containers provided by the laboratory to collect and store samples are used. Use of any other type of containers could contaminate the samples.
- To prevent sample contamination, the sample containers will not be touched nor will anything be put into them before collecting storm water samples.
- The sample containers will not be overfilled. Overfilling can change the analytical results.
- The cap for each sample container is tightly screwed without stripping the threads of the cap.
- A label is completed and attached to each sample container. The label will identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label will also identify any sample containers that have been preserved.
- The sample containers are carefully packed into an ice chest. Samples are kept at as close to 4°C (39°F) as possible until arriving at the laboratory. The samples will not be frozen.
- A chain-of-custody form for each set of samples is completed (see Appendix D for a sample chain-of-custody). The chain-of-custody form includes the name, address, and phone number of the facility, identification of each sample container and the sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis that is required for each sample container.
- Before shipping, the sample containers are packed to prevent breakage during shipment. Frozen ice packs are placed into the shipping container. The sample containers are kept cool during shipment.
- Upon shipping/delivering the sample containers, both the signatures of the persons relinquishing and receiving the sample containers are obtained.
- Personnel are designated and trained to collect, maintain, and ship samples in accordance with the above sample protocols and good laboratory practices.

5.3.4.3 Quality Assurance Field Procedures

Grab sampling procedures are relatively simple, but it is crucial that no mistakes are made or shortcuts taken. To avoid mistakes that might contaminate samples, the field person must:

- Wear powder-free, clean latex or nitrile gloves when handling all sampling equipment, and change gloves frequently, ideally between sample locations
- Collect the sample from the surface of the flow
- Secure bottle lids to prevent leakage
- Completely and promptly label sample bottles with sample type, location, date, time, and initials
- Place filled sample bottles into a cooler and surround each bottle with ice to keep the samples cool and prevent breakage
- Do not increase the chance of sample contamination by leaving any sampling equipment or supplies exposed
- Complete the appropriate chain-of-custody form and have a second person verify that each bottle in the cooler is listed on the chain-of-custody form before submitting the cooler with samples to the analytical laboratory. Blank chain-of-custody forms will be supplied by the analytical laboratory with the sample bottles. As a Baseline facility, as described in Section 5.4.2, pH sampling is conducted using an onsite meter or litmus paper to meet holding time requirements.

5.3.4.4 Clean Sampling Techniques

Clean sampling collection techniques should be followed during the collection of storm water samples to reduce the potential for contamination and permit target analytes to be detected at lower concentrations. Extreme care must be taken during all sampling activities to minimize the exposure of the sample to human, atmospheric, and other source of contamination. Sample collection personnel must adhere to the following rules while collecting storm water samples:

- No smoking, eating or drinking during sample collection
- Do not park vehicles in the immediate sample collection area and never sample near a running vehicle
- Always wear clean, powder-free nitrile or latex gloves when handling sample bottles or equipment
- Never touch the inside surface of a sample bottle or lid, even with a gloved hand
- Never allow the inside surface of a sample bottle or lid to be touched by any material other than sample water
- Do not permit any object to fall into or contact the collected sample water
- Avoid allowing rain water to drip from rain gear or other surfaces into sample bottles

5.3.4.5 Sample Preservation and Holding Times

Table 13, which lists all of the parameters for laboratory analysis, also includes the required sample preservation methods for all analytes at the facility. It should be noted, that pH must be screened within 15 minutes of sample collection. Sample preservation typically includes a reduction in temperature and no exposure to sunlight, but may also include the addition of chemical preservatives which are provided by the analytical laboratory. The temperature of all storm water samples should be reduced to 4°C from the time of sample collection until delivery to the analytical laboratory. In the field, manual grab samples collected must be placed on ice in a designated sampling cooler. The ice should be checked regularly to insure that the samples are kept at the proper temperature. Once samples have reached the analytical laboratory, the sample temperature should continue to be held constant at 4°C by reliable refrigeration equipment. In addition to keeping storm water samples at the proper temperature, it is important to reduce the exposure of the samples to direct sunlight. Sunlight may cause biochemical transformation of the sample resulting in unreliable analytical outcomes. Therefore, samples should be placed in their designated cooler with lid closed immediately. Certain analytes require the addition of chemical preservatives such as, hydrochloric acid (HCl), sulfuric acid (H₂SO₄), or nitric acid (HNO₃).

The holding times for all analytes are also listed in Table 13. For example, the holding time for a sample to be analyzed for TSS is seven days. It is important that all samples be analyzed within the maximum holding times specified by the laboratory analytical methods. To minimize the risk of exceeding holding time requirements, samples should be transferred to the analytical laboratory as soon as possible after the sample collection has been completed. Therefore, field personnel are responsible for coordinating delivery of the samples to the analytical laboratory so that these holding time limits are not exceeded. If holding times are exceeded, the exceedances must be noted and flagged in the laboratory analytical reports.

5.3.4.6 Chain-of-custody Forms

Chain-of-custody forms provided by the laboratory must be filled out by field personnel for all samples submitted to the analytical laboratory. The purpose of the chain-of-custody form is to keep a record of the transfer of sample custody and requested analyses. Sample date, sample location and analyses requested should be noted on each chain-of-custody form. All analyses specified in the monitoring plan should be included on the chain-of-custody form. Laboratory QA/QC requirements, such as laboratory duplicates and matrix spikes, should be noted on the appropriate chain-of-custody form as well.

5.3.4.7 Laboratory Analysis

Laboratory analyses of storm water samples shall be conducted using the analytical methods in accordance with 40 CFR Part 136, as listed in Table 13. The analytical methods for conventional parameters and selected metals are described in the EPA documents Methods for the Chemical Analysis of Water and Wastes (EPA 600/4-79-020, 1979) and Methods for the Determination of Metals in Environmental Samples, Supplement I (EPA 600/R-94/III, 1994).

5.3.4.8 Reporting and Recordkeeping Procedures

Laboratory analytical data from storm water samples must be submitted via SMARTS within 30 days of obtaining complete results for a sampling event. In addition, all records and information related to the facility SWPPP and MIP, are maintained onsite for a period of at least 5 years from the date of sample, observation, measurement, evaluation, or report. Any non-compliance is reported in accordance with the IGP requirements. These records or storm water monitoring information shall include:

- The date, place, and time of facility compliance evaluations, storm water sampling, visual observations, and/or measurements
- The individual(s) who performed the site inspections, sampling, visual observations, and or measurements
- The date and approximate time of analyses
- The laboratory and individual(s) who performed the analyses
- Analytical results, method detection limits, the analytical techniques or methods used, and QA/QC records and results
- Monthly visual observations
- The records of any corrective actions and follow-up activities that resulted from the visual observations, sample analyses, or facility compliance evaluations

5.4 Exceedance Response Actions

5.4.1 NALs and NAL Exceedances

The Discharger shall perform sampling, analysis and reporting in accordance with the requirements of the General Permit and compare the results to the two types of NAL values in Table 13 to determine whether either type of NAL has been exceeded for each applicable parameter. The two types of potential NAL exceedances are as follows:

- Annual NAL exceedance: The Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting year (i.e., all “effluent” data). The Discharger shall compare the average concentration for each parameter to the corresponding annual NAL values in Table 13. For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentrations shall be calculated in

accordance with the U.S. EPA's NPDES Storm Water Sampling Guidance Document.⁵ An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for that parameter listed in Table 13.

- Instantaneous maximum NAL exceedance: The Discharger shall compare all sampling and analytical results from each distinct sample to the corresponding instantaneous maximum NAL values in Table 13. An instantaneous maximum NAL exceedance occurs when two or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G) or are outside of the instantaneous maximum NAL range for pH.

5.4.2 Baseline Status

At the beginning of a Discharger's NOI Coverage, all Dischargers have Baseline status for all parameters. At this time, the Site has Baseline status. Level 1 status is briefly discussed in section 5.4.3 of this plan for Venoco's information.

5.4.3 Level 1 Status

A Discharger's Baseline status for any given parameter shall change to Level 1 status if sampling results indicate an NAL exceedance for that same parameter. Level 1 status will commence on July 1 following the reporting year during which the exceedance(s) occurred.⁶

5.4.3.1 Level 1 ERA Evaluation

By October 1 following commencement of Level 1 status for any parameter with sampling results indicating an NAL exceedance, the Discharger shall:

- Complete an evaluation, with the assistance of a Qualified Industrial Storm Water Practitioner (QISP), of the industrial pollutant sources at the facility that are or may be related to the NAL exceedance(s).
- Identify in the evaluation the corresponding BMPs in the SWPPP and any additional BMPs and SWPPP revisions necessary to prevent future NAL exceedances and to comply with the requirements of the IGP. Although the evaluation may focus on the drainage areas where the NAL exceedance(s) occurred, all drainage areas shall be evaluated.

⁵ U.S. EPA. NPDES Storm Water Sampling Guidance Document.
<http://www.epa.gov/npdes/pubs/owm0093.pdf>.

⁶ For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status once those results have been reported.

5.4.3.2 Level 1 ERA Report

Based upon the evaluation, the Discharger shall, as soon as practicable but no later than January 1 following commencement of Level 1 status:

- Revise the SWPPP as necessary and implement any additional BMPs identified in the evaluation
- Certify and submit via SMARTS a Level 1 ERA Report prepared by a QISP that includes the following
 - A summary of the Level 1 ERA Evaluation
 - A detailed description of the SWPPP revisions and any additional BMPs for each parameter that exceeded an NAL
- Certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address)

A Discharger's Level 1 status for a parameter will return to Baseline status once a Level 1 ERA report has been completed, all identified additional BMPs have been implemented, and results from four consecutive QSEs that were sampled subsequent to BMP implementation indicate no additional NAL exceedances for that parameter.

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1, whichever comes first, sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances in SMARTS.

Table 13: Analytical Parameters and Reporting Limits

Analytical Parameter	Test Method No.	Holding Times (from time of collection)	Sample Preservation Requirements	Minimum Sample Volume (mL)	Container Type	Reporting Units	Annual NAL	Instantaneous Maximum NAL
Conventional parameters as required by the IGP ⁷								
Total Suspended Solids (TSS)	SM 2540-D	7 days	Cool to 4°C	1000	Plastic or Glass	mg/L	100	400
pH	pH screen performed within 15 minutes of sample collection ⁸	Immediately upon laboratory receipt	Cool to 4°C	1	Plastic or Glass	pH units	N/A	Less than 6, greater than 9
Oil and Grease (O&G), Total	EPA 1664A	28 days	Cool to 4°C, 2 mL 1:1 HCl	1000	Glass	mg/L	15	25

Abbreviations:

mg/L = milligrams per liter
m/L = milliliters
N/A = Not Applicable
NAL = Numeric Action Level

⁷ Test Methods and NALs per Table 2 of the General Permit.

⁸ To be performed at the facility with Litmus pH paper or equivalent pH test kit.

6 Annual Comprehensive Facility Compliance Evaluation

The Facility shall conduct one Annual Evaluation for each reporting year (July 1 to June 30). If the Discharger conducts an Annual Evaluation fewer than 8 months, or more than 16 months, after it conducts the previous Annual Evaluation, it shall document the justification for doing so. The Discharger shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the Annual Evaluation. At a minimum, Annual Evaluations shall consist of:

- A review of all sampling, visual observation, and inspection records conducted during the previous reporting year
- A visual inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system
- A visual inspection of all drainage areas previously identified as having no exposure to industrial activities and materials
- A visual inspection of equipment needed to implement the BMPs
- A visual inspection of any structural and/or treatment control BMPs
- A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDS
- An assessment of any other factors needed to comply with the requirements of the General Permit

7 Annual Report

The Discharger shall certify and submit via SMARTS an Annual Report no later than July 15th following each reporting year using the standardized format and checklists in SMARTS.

The Discharger shall include in the Annual Report:

- A Compliance Checklist that indicates whether the Discharger complies with, and has addressed all applicable requirements of the IGP
- An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist
- An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year
- The date(s) of the Annual Evaluation

Appendix A: Industrial General Permit

Appendix B: SWPPP Checklist

APPENDIX 1

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

FACILITY NAME: _____

Waste Discharge Identification (WDID) #: _____

	FACILITY CONTACT	Consultant/Qualified Industrial Storm Water Practitioner (QISP)
Name		
Title		
Company		
Street Address		
City, State		
Zip		

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Signed Certification (Section II.A)			
Pollution Prevention Team (Section X.D.1)			
Existing Facility Plans (Section X.D.2)			
Site Map(s) (Section X.E)			
Facility boundaries (Section X.E.3.a)			
Drainage areas (Section X.E.3.a)			
Direction of flow (Section X.E.3.a)			
On-facility water bodies (Section X.E.3.a)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Areas of soil erosion (Section X.E.3.a)			
Nearby water bodies (Section X.E.3.a)			
Municipal storm drain inlets (Section X.E.3.a)			
Points of discharge (Section X.E.3.b)			
Sampling Locations (Section X.E.3.b)			
Structural control measures (Section X.E.3.c)			
Impervious areas (Section X.E.3.d)			
Location of Directly Exposed Materials (Section X.E.3.e)			
Locations of significant spills and leaks (Section X.E.3.e)			
Areas of Industrial Activity (Section X.E.3.f)			
Areas of industrial activity (Section X.E.3.f)			
Storage areas/storage tanks (Section X.E.3.f)			
Shipping and receiving areas (Section X.E.3.f)			
Fueling areas (Section X.E.3.f)			
Vehicle and equipment storage/maintenance (Section X.E.3.f)			
Material handling/processing (Section X.E.3.f)			
Waste treatment/disposal (Section X.E.3.f)			
Dust or particulate generation (Section X.E.3.f)			
Cleaning and material reuse (Section X.E.3.f)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Other areas of industrial activities (Section X.E.3.f)			
List of Industrial Materials (Section X.F)			
Storage location			
Quantity			
Frequency			
Receiving and shipping location			
Quantity			
Frequency			
Handling location			
Quantity			
Frequency			
Potential Pollution Sources (Section X.G)			
Description of Potential Pollution Sources (Section X.G.1)			
Industrial processes (Section X.G.1.a)			
Material handling and storage areas (Section X.G.1.b)			
Dust & particulate generating activities (Section X.G.1.c)			
Significant spills and leaks (Section X.G.1.d)			
Non-storm water discharges (Section X.G.1.e)			
Erodible surfaces (Section X.G.1.f)			
Assessment of Potential Pollutant Sources (Section X.G.2)			
Narrative assessment of likely sources of pollutants (Section X.G.2.a)			
Narrative assessment of likely pollutants present in storm water discharges (Section X.G.2.a)			
Identification of additional BMPs Section X.G.2.b)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Identification of drainage areas with no exposure (Section X.G.2.c)			
Identification of additional parameters (Section X.G.2.d)			
Storm Water Best Management Practices (Section X.H)			
Minimum BMPs (Section X.H.1)			
Good housekeeping (Section X.H.1.a)			
Preventative maintenance (Section X.H.1.b)			
Spill response (Section X.H.1.c)			
Material handling and waste management (Section X.H.1.d)			
Erosion and sediment controls (Section X.H.1.e)			
Employee training program (Section X.H.1.f)			
Quality assurance and record keeping (Section X.H.1.g)			
Advanced BMPs (Section X.H.2)			
Implement advanced BMPs at the facility (Section X.H.2.a)			
Exposure Minimization BMPs (Section X.H.2.b.i)			
Storm Water containment and discharge reduction BMPs (Section X.H.2.b.ii)			
Treatment Control BMPs (Section X.H.2.b.iii)			
Other advance BMPs (Section X.H.2.b.iv)			
Temporary Suspension of Activities (Section X.H.3)			
BMPs necessary for stabilization of the facility (Section X.H.3)			

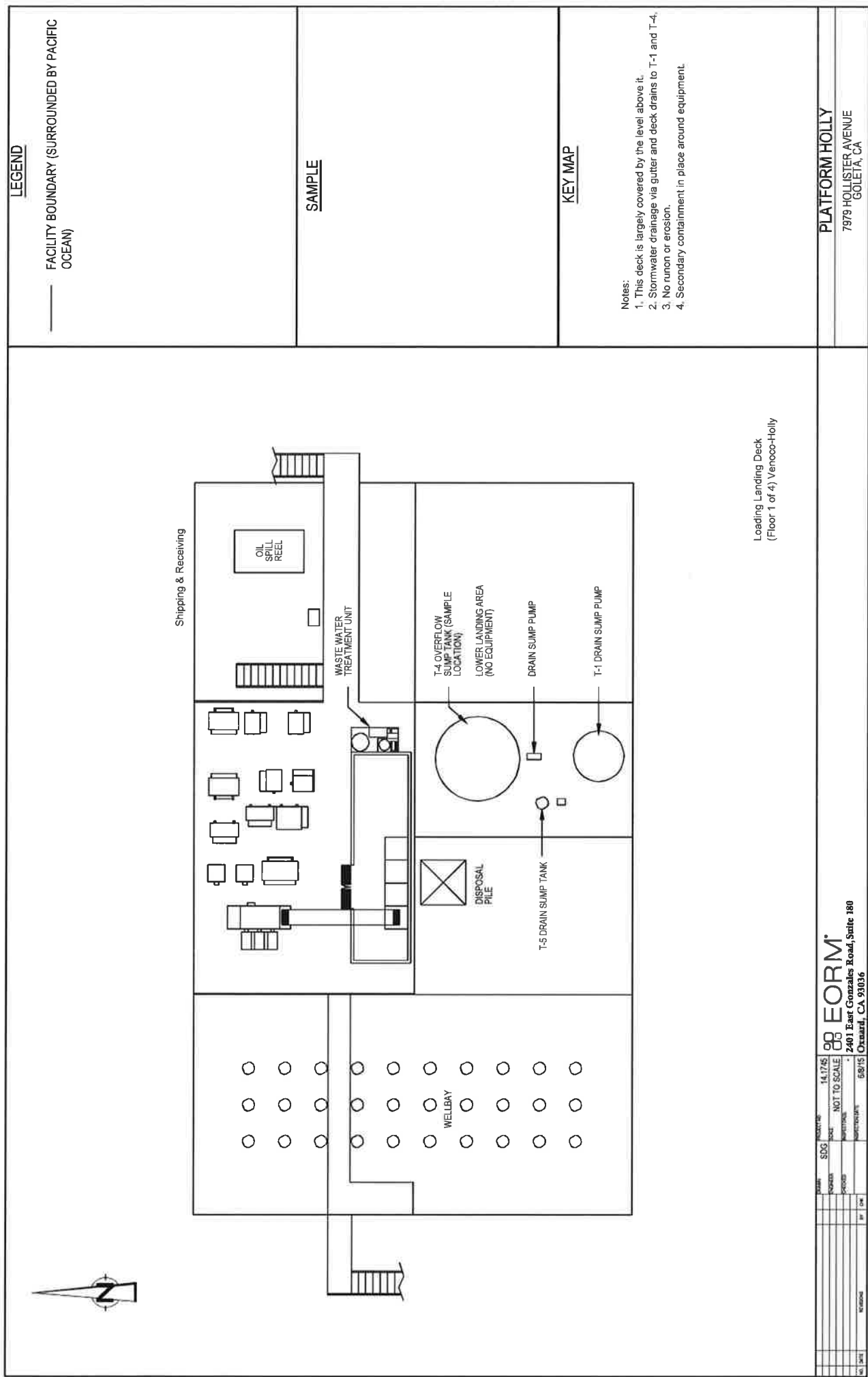
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
BMP Descriptions (Section X.H.4)			
Pollutant that a BMP reduces or prevents (Section X.H.4.a.i)			
Frequency of BMP implementation (Section X.H.4.a.ii)			
Location of BMP (Section X.H.4.a.iii)			
Person implementing BMP (Section X.H.4.a.iv)			
Procedures/maintenance/ instructions for BMP implementation (Section X.H.4.a.v)			
Equipment and tools for BMP implementation (Section X.H.4.a.vi)			
BMPs needing more frequent inspections (Section X.H.4.a.vii)			
Minimum BMP/applicable advanced BMPs not implemented at the facility (Section X.H.4.b)			
BMPs implemented in lieu of minimum or applicable advanced BMPs (Section X.H.4.c)			
BMP Summary Table (Section X.H.5)			
Monitoring Implementation Plan (Section X.I)			
Team members assisting in developing the MIP (Section X.I.1)			
Summary of visual observation procedures, locations, and details (Section X.I.2)			
Justifications if applicable for: Alternative discharge locations, Representative Sampling Reduction or, Qualified Combined Samples (Section X.I.3)			
Procedures for field instrument calibration (Section X.I.4)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Example of Chain of Custody (Section X.I.5)			
Annual Comprehensive Facility Compliance Evaluation (Section XV)			
Review of all visual inspection and monitoring records and sampling and analysis results conducted during the previous reporting year (Section XV.A)			
Visual inspection of all areas of industrial activity and associated potential pollutant sources (Section XV.B)			
Visual inspection of all drainage areas previously identified as having no-exposure to industrial activities and materials in accordance with the definitions in Section XVII (Section XV.C)			
Visual inspection of equipment needed to implement the BMPs (Section XV.D)			
Visual inspection of any structural and/or treatment control BMPs (Section XV.E)			
Review and assessment of all BMPs for each area of industrial activity and associated potential pollutant sources (Section XV.F)			
Assessment of other factors needed to complete the information described in Section XVI.B (Section XV.G)			

Appendix C: Site Map



LEGEND

— FACILITY BOUNDARY (SURROUNDED BY PACIFIC OCEAN)

— GUTTER FLOW DIRECTION

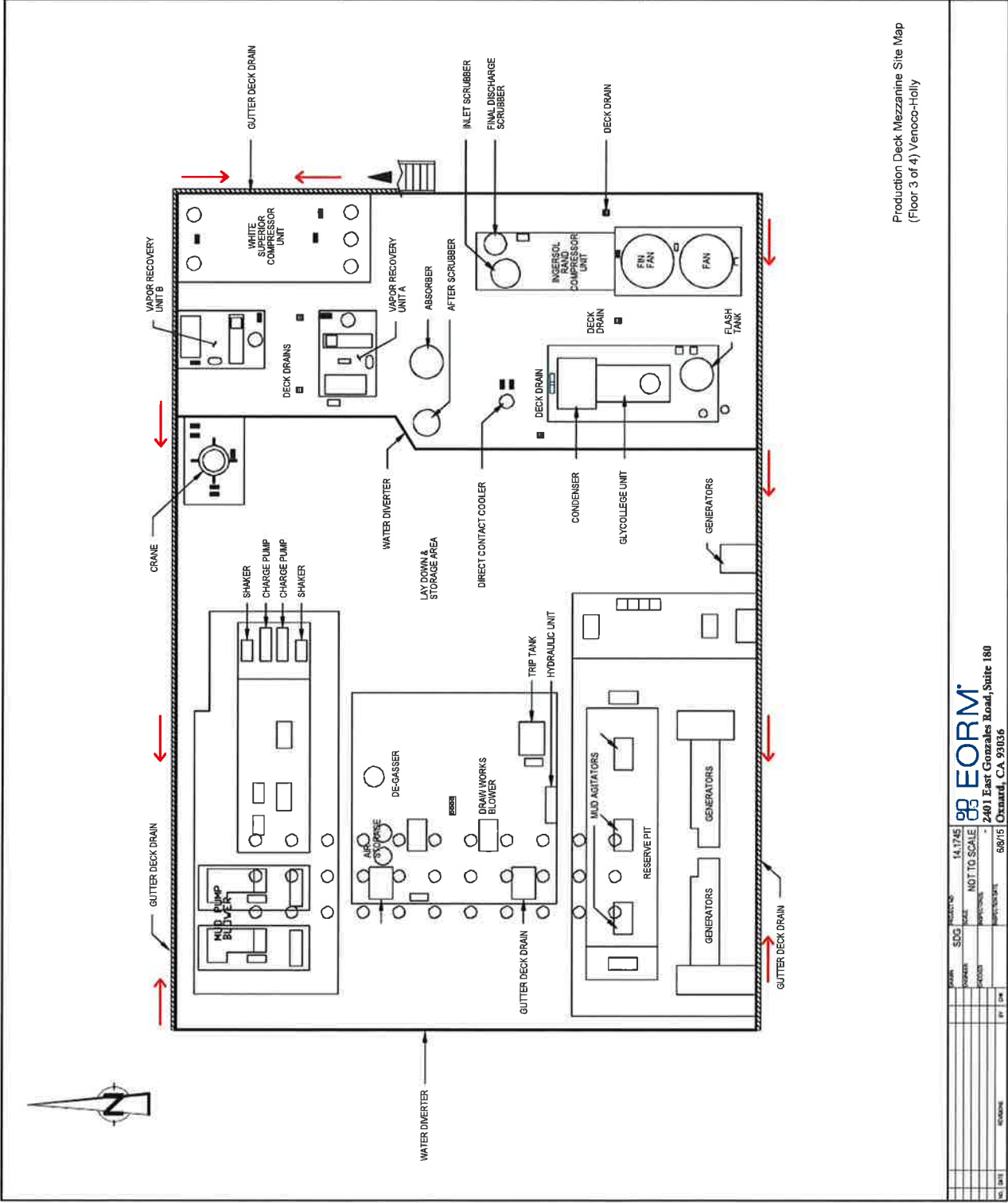
SAMPLE

KEY MAP

Notes:

1. This deck is partially covered by the level above it.
2. Stormwater drainage via gutter and deck drains to T-1 and T-4.
3. No runoff or erosion.
4. Secondary containment in place around equipment.

PLATFORM HOLLY
7979 HOLLISTER AVENUE
GOLETA, CA



14.1745
NOT TO SCALE
2401 East Gonzales Road, Suite 180
58715 Oxnard, CA 93036

EORM

LEGEND

— FACILITY BOUNDARY (SURROUNDED BY PACIFIC OCEAN)

SAMPLE

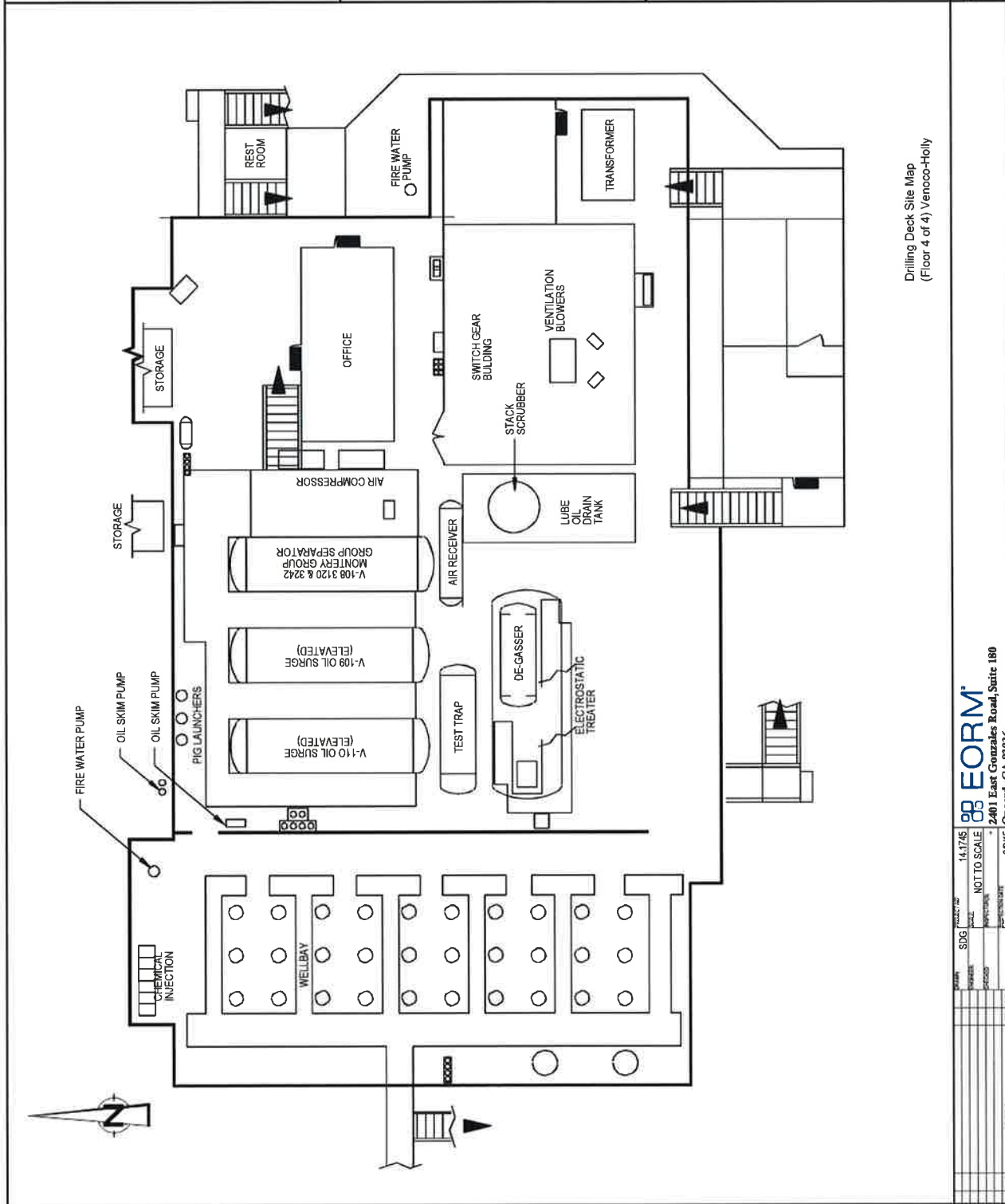
KEY MAP

Notes:

1. The equipment on this deck is covered, where feasible.
2. Stormwater drainage leads to T-1 and T-4.
3. No runoff or erosion.
4. Secondary containment in place around equipment.

PLATFORM HOLLY

7979 HOLLISTER AVENUE
GOLIETA, CA



Drilling Deck Site Map
(Floor 4 of 4) Venoco-Holly

DATE	SDG	14.17/45	NOT TO SCALE	2401 East Gonzales Road, Suite 180	688/15	Orland, CA 93036
REVISIONS	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
1	14.17/45	SDG	14.17/45	14.17/45	SDG	14.17/45

EORM

Appendix D: Example Chain-of-Custody

FORM NO: 01-01 (rev. 14-OCT-07)